

What is claimed is:

1           1. A see-through signaling apparatus, comprising:

2                 a) a first substantially transparent panel having a  
3 front and a rear surface substantially parallel to one  
4 another, said front surface of said first transparent  
5 panel being adapted for mounting to a vehicle window;

6                 b) a light-emitting element affixed to said rear  
7 surface of said first transparent panel and adapted to  
8 generate and project light outwardly, away from said  
9 front surface;

10                c) substantially transparent means for delivering  
11 power to said light-emitting element operatively  
12 connected thereto and disposed on at least one of said  
13 front and said rear surfaces of said first transparent  
14 panel; and

15                d) means, operatively connected to said light-  
16 emitting element for the control thereof and operatively  
17 connected to said means for delivering power, said  
18 controlling means being adapted and disposed to  
19 selectively control energization of said light-emitting  
20 element;

21       whereby at least when said light-emitting element is in an  
22       unenergized state, visibility through said first transparent  
23       panel is substantially unoccluded.

1           2.   The see-through signaling apparatus as recited in  
2       claim 1, wherein said light-emitting element comprises at  
3       least one from the group: LED, organic LED (OLED),  
4       electroluminescent device, incandescent bulb, halogen bulb,  
5       and fluorescent device.

1           3.   The see-through signaling apparatus as recited in  
2       claim 2, further comprising:

3                   e)   means for mounting said see-through apparatus to  
4       an environmental object.

1           4.   The see-through signaling apparatus as recited in 3,  
2       wherein said means for mounting said see-through apparatus to  
3       an environmental object comprises at least one of the group:  
4       double backed adhesive device, a fixed bracket, and a hinged  
5       support.

1           5.   The see-through signaling apparatus as recited in  
2       claim 4, wherein said hinged support comprises an electro-  
3       mechanical actuator operatively attached thereto and adapted  
4       to move said see-through display apparatus along an arcuate  
5       path around said hinge.

1           6. The see-through signaling apparatus as recited in  
2 claim 2, further comprising:

3           e) a controller operatively connected to and  
4 adapted to selectively energize each of said light-  
5 emitting elements, said controller comprising at least of  
6 the input devices: a selector panel, a keyboard, and a  
7 receiver adapted to receive remotely generated control  
8 commands.

1           7. The see-through signaling apparatus as recited in  
2 claim 6, wherein said selectively energize step comprises at  
3 least one of the functions: turn on and off, control the  
4 intensity of, generate a pattern by energizing a predetermined  
5 number, control the color, animate a pattern, provide a  
6 textual message, scroll a textual message, and blink at a  
7 predetermined rate and duration at least one of said plurality  
8 of light-emitting elements.

1           8. The see-through signaling apparatus as recited in  
2 claim 7, further comprising:

3           f) a remote control wirelessly connected to said  
4 receiver and configured and adapted to generate at least  
5 one command to cause said controller to perform said  
6 selective energization.

1           9. The see-through signaling apparatus as recited in  
2 claim 2, further comprising:

3           e) an electrochromic device disposed said first  
4 substantially transparent panel.

1           10. The see-through signaling apparatus as recited in  
2 claim 2, further comprising:

3           e) a second, substantially transparent panel  
4 located behind, spaced-apart from, and substantially  
5 parallel to said first substantially transparent panel,  
6 the space between said rear surface of said first  
7 transparent panel and a front surface of said second  
8 transparent panel defining a plenum adapted for  
9 containing cooling air supplied thereto so as to cool  
10 said light-emitting elements.

1           11. The see-through signaling apparatus as recited in  
2 claim 10, further comprising:

3           f) an external plenum attached proximate a bottom  
4 edge of said see-through signaling apparatus and  
5 communicative with said plenum; and

6           g) a discharge grill located proximate a top edge  
7 of said see-through signaling apparatus;

8 whereby air is introduced from said external plenum, said air  
9 being discharged by said discharge grill.

1           12. The see-through signaling apparatus as recited in  
2 claim 11, further comprising:

3           h) an air moving device operatively connected to  
4 said external plenum.

1           13. The see-through signaling apparatus as recited in  
2 claim 12, further comprising:

3           i) a temperature sensor disposed proximate said see-  
4 through signaling apparatus and operatively connected to said  
5 air moving device so as to control the speed thereof in  
6 response to a temperature of said see-through signaling  
7 device.

1           14. The see-through signaling apparatus as recited in  
2 claim 13, wherein said air moving device further comprises an  
3 intake disposed in one of the locations: inside a vehicle, and  
4 outside a vehicle.

1           15. The see-through signaling apparatus as recited in  
2 claim 10, further comprising:

3           e) an electrochromic device disposed on at least  
4 one of said first and said second substantially  
5 transparent panels.

1           16. The see-through signaling apparatus as recited in  
2 claim 10, further comprising:

3           e) means for mounting said see-through apparatus to  
4 an environmental object.

1           17. The see-through signaling apparatus as recited in  
2 claim 16, wherein said means for mounting said see-through  
3 apparatus to an environmental object comprises at least one of  
4 the group: double backed adhesive device, applied adhesive, a  
5 fixed bracket, and a hinged support.

1           18. The see-through signaling apparatus as recited in  
2 claim 17, wherein said hinged support comprises an electro-  
3 mechanical actuator operatively attached thereto and adapted  
4 to move said see-through display apparatus along an arcuate  
5 path around said hinge.

1           19. The see-through signaling apparatus as recited in  
2 claim 10, further comprising:

3           e) a controller operatively connected to and  
4 adapted to selectively energize each of said light-  
5 emitting elements, said controller comprising at least of  
6 the input devices: a selector panel, a keyboard, and a  
7 receiver adapted to receive remotely generated control  
8 commands.

1           20. The see-through signaling apparatus as recited in  
2 claim 19, wherein said selectively energize step comprises at  
3 least one of the functions: turn on and off, control the  
4 intensity of, generate a pattern by energizing a predetermined  
5 number, control the color, animate a pattern, provide a  
6 textual message, scroll a textual message, and blink at a  
7 predetermined rate and duration at least one of said plurality  
8 of light-emitting elements.

21. The see-through signaling apparatus as recited in  
claim 20, further comprising:

f) a remote control wirelessly connected to said  
receiver and configured and adapted to generate at least  
one command to cause said controller to perform said  
selective energization.